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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/329,606	06/10/1999	ANDREW F. ROBERTS	10012.911	8318

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EXAMINER

PRIETO, BEATRIZ

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 09/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/329,606

Applicant(s)

ROBERTS ET AL.

Examiner

B. Prieto

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9,11,13-19 and 21-105 is/are pending in the application.
- 4a) Of the above claim(s) 21-105 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,11 and 13-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Detailed Action

1. This communication is in response to amendment filed 6/17/03, claims 1, 3-9, 11, 13-19, and 21-105 are hereby set forth for examination.

2. Newly submitted claim 21-105 are directed to an invention that is independent or distinct from the invention originally claimed for the following noted below. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 21-105 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

3. In this case, the inventions presented on claims 21-105 are independent or distinct from the original claimed invention describe on claims 1, 3-9, 11, 13-19 for the following reasons; Invention I. Claims 1, 3-9, 11, 13-19 are drawn to a system/method for accessing a plurality of service providers, classified in class 709/219.

Invention II. Claims 21-30 are drawn to a method for accessing network services, classified in class 709/217. In this case, the following features are not present in Invention I: identifiers that comprise of input and output schema for each of said plurality of network services; wherein said engine searches said identifiers in said directory to direct said request to an appropriate network service; sending input data to said network service according to said input schema; and receiving response data from said network service according to said output schema. Further, features of claims dependent on claim 21 are not present in Invention I, such as claims 22-26 and claims 29-30.

Invention III. Claims 31-49 are drawn to a method for using a web service, classified in class 709/315. In this case, the following features are not present in Invention I: specifying metadata for a web service; identifying a service driver class for a service driver associated with said web service, wherein said service driver class is configured for use in a web services engine; supplying a plurality of web service parameters that configure said service driver; defining an XML input and output interfaces for said web service. Further, features of claims dependent on claim 31 are not present in Invention I, such as claims 32-49.

Invention IV. Claims 50-62 are drawn to a method for invoking a web service application (WSA), classified in class 709/316. In this case the following features are not present in Invention I: invoking a web services application (WSA), comprising: accepting a request to run a model based

service; loading an instance of model runner in response to said request; loading a runtime model in said instance of model runner; and generating a WSA based on said loaded runtime model. Further, features of claims dependent on claim 50 are not present in Invention I, such as claims 51-62.

Invention V. Claims 63-73 are drawn to a system for providing network services including authentication features, classified 713/155. In this case the following features are not present in Invention I: invoking a web services application (WSA), comprising: a plurality of service parameters that configure said driver; login data is sent to said network service for authentication and an authentication is received from said network service before access is granted to said network service; said login data is sent via a packet of XML; said authentication received from said network service in said session is cached for later use within said session; said input data is sent after all instance of said driver associated with said network service is initialized and an execute method in said driver is called; said input data is validated; said response data received from said network service is formulated into an appropriate format and sent back to an entity that originates said request.

Invention VI. Claims 74-92 are drawn to a system for using a web service including service drivers implemented in Java, classified in class 709/315. In this case, the following features are not present on Invention I: a service driver class for a service driver associated with said web service, wherein said service driver class is configured for use in said web services engine; a plurality of web service parameters that configure said service driver; and an XML input and output interfaces for said web service. Further, features of claims dependent on claim 74 are not present in Invention I, such as claims 75-82, and 84-92.

Invention VII. Claims 93-105 are drawn to a system for invoking a web service application including a run time model, classified in 709/316. In this case, the following features are not present on Invention I: A system for invoking a web services application (WSA), comprising: an engine for accepting a request to run a model based service; an instance of model runner to be loaded by said engine in response to said request; a runtime model to be loaded in said instance of model runner; and a WSA to be generated based on said loaded runtime model. Further, features of claims dependent on claim 93 are not present in Invention I, such as claims 94-105.

The inventions are distinct, each from the other because of the following reasons: Inventions II-VI and I are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable.

4. Because these inventions are distinct for the reasons given above and because the search required for each group is different and not co-extensive for examination purpose because these groups would

require different searches on PTO's classification class and subclass e.g. Invention I (claims 1, 3-9, 11, 13-19) require a search in class 709/219. Invention II (claims 21-30) require a search in class 709/217 not required for Invention I. Invention III (claims 31-49) require a search in class 709/315 not required for Invention I-II. Invention IV. Claims 50-62 require a search in class 709/316 not required for Inventions I-II. Invention V (claims 63-73) require a search in class 713/155 not required for Inventions I-IV. Invention VI (claims 74-92) require a search in class 709/315 not required for Inventions I-II and IV. Invention VII (claims 93-105) require a search in class in 709/316 not required for Inventions I-III, and VI.

5. Should applicant traverse this restriction on the grounds that the groups are not patentably distinct, applicant should present evidence or identify such evidence now of record showing the groups to be obvious variations of one another. If the groups are determined not to be patentably distinct and they remain in this application, any rejection of one group over prior art will apply equally to all other embodiments. See Ex parte Appeal No. 315-40, 152 USPQ 71 (Bd. App. 1965). No argument asserting patentability based on the differences between the groups will be considered once the groups have been determined to comprise a single inventive concept.

6. Claim 1 recites the limitation "said session" in line 7 on page 2 of amendment. There is insufficient antecedent basis for this limitation in the claim. Correction is required (see MPEP 2173.05(e)).

Claim Rejection 35 U.S.C. 103

7. Quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action may be found in previous office action.

8. Claims 1, 3-5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneck et. al. (Schneck) U.S. Patent No. 6,260,039 in view of Cavanaugh, III et. al. (Cavanaugh) U.S. Patent No. 5,991,823.

Regarding claims 1 and 11, Schneck teaches substantial features of the invention as claimed. Schneck teaches a system/method comprising:

storing identifiers of a plurality of network services (resources specified via a URL see col

4/lines 23-33, 43-63, identifiers e.g. DN or e.g. a document retrieve using an URL) in a (104) directory (col 3/lines 37-38);

an computer (102) (engine, i.e. processor) receiving request (col 3/lines 54-56, col 4/lines 48-52, 53-56) to access said plurality of network services;

a plurality of drivers means for handling request and responses to/from said plurality of network services (i.e. drivers for interfacing with said plurality of network services) (col 3/lines 28-33, col 4/lines 10-14, interfacing with network services, col 4/line 10-14) and with said engine via a plurality of drivers based on said requests (col 4/lines 23-3, 42-65 request data);

said network services comprising a plurality of service providers accessible to said plurality of drivers for providing network services identified (e.g. names) in said directory (col 5/lines 33-67, service entities using directory entries, col 5/lines 62-67);

however Schneck does not explicitly teach where said directories include metadata to a plurality of services, and constructing a state storing session for interfacing with said network services, wherein said session storing session uses a driver to interface with each of said network services, and where said state storing session for interfacing with said network services is configured from said metadata from said directory;

Cavanaugh teaches a system/method related to the field of providing network services (see abstract), teaching a system/method including

directory of identifiers and metadata to a plurality of network services (Cavanaugh: directory 52 see col 7/lines 25-29, identifiers e.g. 152, 160 of Fig. 5, see col 10/lines 10-35, and "metadata", i.e. data about data see e.g. 158-164 of Fig. 5, col 14/lines 27-46 to network services see col 1/lines 65-col 2/line 8, 26-29 services e.g. 15 & 16 of Fig. 1a, see col 5/lines 41-51),

an engine for constructing a state storing session for interfacing with said network services (Cavanaugh: broker 11 i.e. engine for receiving request and direct request to access network services see col 5/lines 29-35 uses object adapter 28 to "interfaces", i.e. communicates or interacts with said network services see col 9/lines 40-42, said engine further including a subcontract layer 36 "state storing session" for interfacing with network services i.e. "interfacing" with network services see col 8/lines 20-26, implements the method required by the network services see col 6/lines 15-25),

said state storing session uses a driver to interface with each of said network services (Cavanaugh: state storing session, i.e. subcontracts layer 36 uses process (skeleton 30/32) that calls a service i.e. driver to communicate with the service see col 6/lines 40-57),

said state storing session is configured from said metadata from said directory (Cavanaugh: subcontract layer is defined "configured" by the identifier 158 data about data, i.e. metadata in the object reference obtained from the directory of network services see col 8/lines 20-47 see Fig. 5)

It would have been obvious to one ordinary skilled in the art at the time the invention was made given Schneck's teachings for accessing resource services represent by URL stored in a directory for accessing pertinent service to utilize including metadata to a plurality of services in a directory of services, and constructing a state storing session for interfacing with said network services, wherein said session storing session uses a driver to interface with each of said network services, and where said state storing session for interfacing with said network services is configured from said metadata from said directory, as taught by Cavanaugh. One ordinary skilled will be motivated utilize metadata to create functions to be used for communicating with remote object services where the functions are configured dynamically at runtime with servant objects.

Regarding claim 3, the above teachings further teach wherein said directory includes metadata descriptive information, i.e. metadata (Schneck: col 3/lines 57-60) for each of said plurality of network services in said directory (Schneck: col 5/lines 36-37, 41-49); wherein said metadata defines a schema comprises input/output data (e.g. data format (html) or HTTP parameters) (Schneck: col 4/lines 23-33, 42-65).

Regarding claims 4-5, the above teachings further teach wherein said metadata further includes definition, invocation or commands data, i.e. configuration parameters for defining, invoking, or commanding, i.e. configuring a specific driver (Schneck: col 5/lines 26-32, object class) associated with said service (Schneck: col 5/lines 1-11, col 6/lines 1-6); and wherein said network services are accessible via an API (Schneck: col 4/lines 10-14).

9. Claims 6-9 and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneck in view of Cavanaugh in further view of Call U.S. Patent No. 6,154,738.

Regarding claim 6, the above teachings however do not explicitly teach wherein said network services are XML-based network services;

Call teaches a directory of a plurality of network services means for receiving request

to access said network services and means for providing said network services using data in said directory identifying network services, wherein said network services are XML-based network services (col 9/lines 66-col 23/line 49).

It would have been obvious to one ordinary skilled in the art at the time the invention was made to include XML based network services, motivation would be enabling enhance the rendered network services wherein the selection and rendering of the product information network services is controlled by the links specified by service provider providing dynamic data controlled by the style specification which may have different visual styles, as suggested by Call.

Regarding claims 7-8, service provider comprises an entity that is capable of receiving some information and providing a response (Schneck: col 4/lines 15-21); wherein said engine interprets said requests and determines what network services are needed to fulfill request, directs requests to the appropriate network services via said service drivers (Schneck: col 7/lines 8-14, col 5/lines 62-67), and builds responses into replies (Schneck: col 7/lines 18-32, col 6/lines 1-6).

Regarding claim 9 the above teachings further teach wherein said requests comprise HTTP requests (Schneck: col 4/lines 23-33); wherein access to said system is accomplished via a web (108) browser (Schneck: col 3/lines 24-41).

Regarding claims 13-19, these claims comprise the method associated with the system disclosed on claims 2-10, respectively same rationale is applicable.

10. Applicant's arguments with respect to claims 1 and 11 have been considered but are moot in view of the new ground(s) of rejection.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Prosecution of this application is closed by means of this final office action § 1.113, applicant may request continued examination of the application by filing a Request for Continued Examination of under 37 CFR § 1.114 and providing the corresponding fee set forth in § 1.17(e) for the submission of, but not limited to, new arguments, an information disclosure statement, an amendment to the written description, claims, drawings, or new evidence in support of patentability. Or applicant whose claims has been twice rejected, may appeal from the decision of the administrative patent judge to the Board of Patent Appeals and Interferences under 35 U.S.C. §134.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (703) 305-0750. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Mark R. Powell can be reached on (703) 305-9703. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-6606. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Any response to this final action should be mailed to:

Box AF

Commissioner of Patents and Trademarks
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or faxed to the Central Fax Office:

(703) 872-9306, for Official communications and entry

Or Telephone:

(703) 306-5631 for TC 2100 Customer Service Office

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist).



B. Prieto
TC 2100
Patent Examiner
September 19, 2003

MARC D. THOMPSON
MARC THOMPSON
PRIMARY EXAMINER